Health and Income - The Role of Public Health Insurance in Ghana

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In the developing world individual access to health services is largely determined by income. The 'cash and carry' system that is prevalent in most developing countries restricts medical access to the amount of money paid to the health care provider. Health insurances can provide protection to households' income by reducing these out-of-pocket health expenditures, facilitating early recovery and preventing households from a reduction in labour income due to declining work capacity. Furthermore, health insurance schemes can prevent households from coping strategies such as borrowing at usurious rates or less reliable informal transfer networks. While many studies on health insurance schemes have focused on outcomes such as health care utilization, out-of-pocket health expenditure and consumption (e.g. O'Donnell et al. 2015, Wagstaff and Pradhan 2005), our study investigates whether a public health insurance scheme affects labour market outcomes such as work income and working hours. We use the launch of the Ghanaian National Health Insurance Scheme (NHIS) in 2003, coupled with differences in the date of implementation between local districts in order to evaluate the causal relationship between the NHIS and labour market outcomes in Ghana. We also examine whether the NHIS affects mediating outcomes such as health-related outcomes and participation in informal transfer networks.

For our empirical analysis we use the fifth wave of the Ghanaian Living Standard Household Survey (GLSS), which was conducted during a survey period of 12 months (October 2005 to September 2006). As the public health insurance scheme has been implemented at different dates by most district authorities during this survey

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period, we use this variation for our identification strategy. In particular, we are able to identify individuals that were interviewed before and after the implementation of the NHIS, as we collect the exact implementation dates of the NHIS at the district level. In addition, we also identify those districts that implement the NHIS after the survey period. Thus, in our identification strategy we use a difference-in-difference framework comparing individuals at different points in time that are living in districts where the NHIS is implemented with individuals where it is not. In order to reveal if the order of the NHIS rollout between 2005 and 2006 across districts is not driven by pre-determined district charcteristics, we estimate a discrete-time logistic hazard model on the district-month level using data on district characteristics before the NHIS implementation. These characteristics include demographic information and measures for economic development. We find that the coefficients are not significantly related to the hazard of implementing the NHIS.

Our results show that the introduction of the health insurance scheme reduces participation in informal transfer networks, improves health status, reduces the number of days being sick and reduces medical expenditures. Especially, the spending at the very top of the distribution of medical expenditures was reduced by one-half, which indicates a reduction of individuals' exposure to high medical expenditure risks. Furthermore, we find an increase in work income for individuals in rural areas and working in the agriculture sector that also experienced a better health status after the NHIS implementation. In addition, we find that self employed individuals increase their working hours. Altogether, our results suggest that the introduction of the public health insurance scheme provide some protection to individuals' agricultural income by facilitating early recovery, a better health status and by reducing pressure on households to reallocate resources meant for productive purposes to medical spending.

References

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